SHOP MANUALS

¶ The first thing you should buy for your motorcycle, even before gas and oil, is a Shop manual. Every thing you need to know about your motorcycle is in that Shop Manual. It will save you time... Lots of time, and it will save you money... Lots of money. EVERYTHING I tell you on this web site is meant to be used with a Shop Manual. You absolutely, positively MUST have a Shop Manual for the bike you are working on.

But Dan, you might say, Shop Manuals cost a lot of money, and reading them takes time. How does this help me? Ok, good question..... Once upon a time I had to put new wheel bearings in my motorcycle, a Norton it was.....front wheel..... 750 Atlas. Hey, I are a great mechenic right? Shoot, I don't need no book. (DUH !) I work for almost an hour... no luck... they will not come out. Soooo, I get the Shop Manual out and I read how to do it. It then took LESS THEN ONE MINUTE to knock both bearings out. There's your time.

Now what about money? Well, every once in a while, usually on the crank or cluch end, there will be a LEFTHAND thread nut. If you ever snap one of those off it's new crank time, and that, my friend, will cost you a lot of money. What about piston clearance...Ring end gap...torque values for head bolts, all that good stuff can cost you money if you do it wrong. With a Shop Manual you'll do it right the first time.

Factory manuals are best. (most of the time, anyway) I really like Haynes manuals too, and Clymer manuals are good. If you are working on older bikes, and if you can find them, Glynns manuals are excellent. You can get shop manuals fron a lot of different places. The local dealer for your brand of motorcycle will have, or can order, a factory manual for your bike. Your local book store can get you any of the Clymer or Haynes manuals. The local Library will have some manuals on older bikes, as will a used book store. You can also find them at a motorcycle parts and accessories store, and on the Internet. In fact, over the years, I have down loaded over one hundered Gigabytes of Shop Manuals from the Internet. They are not hard to find, just look around.

Remember....

"YOU NEVER HAVE TIME TO DO IT RIGHT,
BUT YOU ALWAYS HAVE TIME TO DO IT OVER !"

If You Don't, It's OK, I Don't Care.
It's Not My Bike...It's Not My Money.

What's that you say... Can't find a manual ? Bike too rare or something ?
Try my FREE Shop/Parts Manual Page.

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Wheels and Brakes — Heavyweight Twins

To remove the front wheel

With the machine on the central stand: Detach the brake cable from the expander lever. Detach the brake cable adjuster from the brake plate. Detach the right hand spindle nut. Release the pinch stud in left fork slider end. Take the weight of the wheel by the left hand, pull out the wheel spindle. The wheel can be taken out of the forks.

To refit the wheel

Reverse the procedure described for removal, with the following precautions. Remove traces of rust from the spindle and grease. Exercise care to correctly locate brake plate in the fork slider. Do not tighten unduly the slider pinch bolt, overtightening can cause a fracture.

Note—If the fork motion is stiff after refitting the wheel, slack off the spindle nut and work the forks up and down (the fork tubes will take up alignment), then retighten the spindle nut.

To remove the rear wheel

The rear wheel is detachable from the brake drum. With the rear wheel clear of the ground: Take out the three rubber grummets (4). Remove the sleeve nuts (8) which retain the wheel to the brake drum. Unscrew the wheel spindle (20) and remove it. Take away the distance piece, between the speedometer drive, which will come away also, there is no need to separate the cable from the drive. Pull the wheel away from the driving studs in the brake drum. Incline the machine to the right side, then pass the wheel under the left side silencer, clear of the machine.

To remove the brake drum

With the rear wheel removed: Take off the brake rod hand adjuster, then remove the rear chain connecting link. Release the nut securing the dummy spindle, pull back the brake drum clear of the fork ends.

To dismantle the front hub

The wheel hubs are packed with grease during initial assembly, and should not need further lubrication for at least 10,000 miles, when the hubs should be dismantled for cleaning and fresh grease used. To dismantle the front hub, with the wheel removed take away the brake plate with brake shoes.

Unscrew bearing lock plate on left side of hub, holes are provided for a peg spanner or use a punch. If the plate resists removal use a little heat which will facilitate removal, take out felt sealing washer and distance piece.

To eject the bearing use a drift through the brake side (the front wheel spindle can be used for this purpose) when a few light blows from a mallet will drive out the bearing until it is clear of the hub, and no more, as the other bearing goes into the hub during this process.

Take out the spindle, or drift, invert the wheel and repeat the process to eject the double bearing which will bring with it the large steel washer, the felt washer, also the thin steel washer.

Assembling the hub

Clean and repack both bearings with fresh grease (see table of lubricants). Press into the left side of the hub the single bearing, fit the distance washer (flat side against the bearing), then the felt washer and secure with the lock plate.

Invert the hub, insert the distance tube (small end first) against the bearing.

Enter the double bearing square with the hub, use the drift through both bearings and drive home until the bearing abuts against the distance tube.

Fit the smallest of the two washers, the felt washer, then the large steel washer.

With a suitable punch peen the hub material, where it joins the washer in three equidistant positions to retain the washer.

Rear hub dismantling

With the wheel removed, remove the speedometer drive lock ring (this has a *left hand thread*), take out felt washer and distance piece. To eject the bearing use the wheel spindle with its washer also the distance piece that goes between the speedometer drive and the frame placed on the spindle. Partially drive out the bearing until it abuts against the reduced diameter inside the hub. Take out the spindle, use a short length of steel tubing with the outside diameter slightly smaller than the inside diameter of the bearing and drive out the bearing.

Invert the wheel, then drift out the other bearing, which will take with it the steel cup, felt washer and the thin steel washer.

Assembling the hub

Deal with the bearings as already described and assemble by first fitting the single row bearing, in the reverse order described for dismantling, with the following precaution: when tightening the *left hand* lock ring avoid damage to the slots for the speedometer drive. Finally "peen" the hub dished washer to the hub. The hub assembly sequence is shown in fig. 46.

Dismantling the brake drum

A bearing is not used in the brake drum; when the spindle